What is Claimed is:

1. A nozzle structure comprising:

a monolithic body having an array of nozzles, the nozzles having sectional openings having heights of about 100 nm or less,

the nozzles associated with a well structure.

2. The nozzle structure as in claim 1, wherein the nozzles have sectional openings having heights of about 50 nm or less.

3. The nozzle structure as in claim 1, wherein the nozzles have sectional openings having heights of about 20 nm or less.

4. A nozzle structure comprising:

a monolithic body having an array of nozzles, the nozzles having sectional openings having heights of about 100 nm or less,

each nozzle being associated with a well structure.

5. The nozzle structure as in claim 4, wherein the nozzles have sectional openings having heights of about 50 nm or less.

6. The nozzle structure as in claim 4, wherein the nozzles have sectional openings having heights of about 20 nm or less.

7. A method of producing a nozzle comprising:

processing a well on a layer supported by a substrate, the wells having a recessed region and at least one sloped wall, the layer having a plateau region adjacent the well;

processing an etch removable layer at least at the plateau region;

removing the layer;

repeating the above steps at least one time to provide a plurality of layers each having a well therein;

aligning and stacking the layers;

cutting the stack of device layers substantially at the plateau regions of the well to expose a cut edge; and

etching from the cut edge at least a portion of the etch removable layer at the plateau to create a nozzle tip.

8. The method as in claim 7, wherein the thickness of the etch removable layer defines a thickness dimension of the nozzle tip.

9. The method as in claim 7 further comprising:

grinding, polishing, or otherwise removing material from the cut edge of the stack to minimize the length of the plateau area prior to etching.

10. The method as in claim 7 wherein the well is substantially symmetrical, further comprising slicing through the recessed region of the well thereby providing a pair of structures to be cut in the area of the plateau.

11. The method according to claim 7 further comprising, prior to removing the layer, filling the recessed region of the well with a removable material.

12. The method as in claim 7, wherein a thickness of the etch removable layer defines a height dimension of the nozzle opening.

13. The method as in claim 12, wherein the thickness of the etch removable layer is about 100 nm or less.

14. The method as in claim 12, wherein the thickness of the etch removable layer is about 50 nm or less.

15. The method as in claim 12, wherein the thickness of the etch removable layer is about 20 nm or less.

16. The method according to claim 7, wherein the nozzle opening is a temporary opening, further comprising

filling the temporary nozzle opening to a defined width with a first material,

filling the region surrounding the first material with a second material, the first material being removable,

removing the first material,

wherein the second material is resistant to the removal of the first material, thereby

creating a nozzle having the defined width, a height defined by the thickness of the etchable material and a length defined by a length of the plateau to the cut line.

17. A method of producing a nozzle comprising:

processing a plurality of wells on a layer of a wafer supported by a substrate, the wells each having a recessed region and at least one sloped wall, the layer having plateau regions adjacent each well;

processing an etch removable layer at least at the plateau regions;

removing the layer;

repeating the above steps at least one time to provide a plurality of layers each having wells therein;

aligning and stacking the layers;

cutting the stack of device layers substantially at the plateau regions of the wells to expose a cut edge; and

etching from the cut edges at least a portion of the etch removable layer at the plateau to create nozzle tips.

18. A method of producing a nozzle comprising:

providing a device layer selectively bonded to a substrate layer with areas of strong bonding and areas of weak bonding;

processing one or more wells in the areas of weak bonding in the device layer wherein the wells have recessed regions and plateau regions;

processing an etch removable layer at least in the plateau regions of the well;

removing the device layer by debonding the strong bond areas and minimally or not at all debonding the weak bond areas;

repeating the above steps at least one time to provide a plurality of device layers having at least one well therein;

aligning the plurality of device layers;

stacking the device layers;

cutting the stack of device layers normal to the surface of the device layers at the plateau regions of the well; and

etching from the cut edge the etch removable layer at the plateau to create a nozzle tip.

19. A method of producing a nozzle comprising:

processing a well on a layer supported by a substrate, the wells having a recessed region and at least one sloped wall, the layer having a plateau region adjacent the well;

processing an etch removable layer at least at the plateau region;

removing the layer;

stacking a cover layer on the layer having the well;

cutting the stack substantially at the plateau region of the well to expose a cut edge; and

etching from the cut edge at least a portion of the etch removable layer at the plateau to create a nozzle tip.

20. A method of producing a nozzle comprising:

processing a well on through multiple known thickness layers, the multiple known thickness layers supported by a substrate, the wells having a recessed region and at least one sloped wall, the layer having a plateau region adjacent the well;

processing an etch removable layer at least at the plateau region;

removing the layer;

stacking a cover layer on the layer having the well;

cutting the stack substantially at the plateau region of the well to expose a cut edge; and

etching from the cut edge at least a portion of the etch removable layer at the plateau to create a nozzle tip,

wherein the known multiple layers provide metrics functionality.

21. A method of detecting a first molecule comprising:

providing a nozzle within a monolithic body having an opening dimension of about 100 nm or less and a nozzle well and an associated electrode;

incorporating a quantity of a second molecule in the nozzle well, the second molecule selected to have known energy state interaction with the first molecule;

providing an electrode associated with the first molecule;

whereby the known energy state is detectable by a potential across the electrodes when the first molecule to be detected and the second molecules are in molecular interaction range.

22. The method as in claim 21, wherein the nozzle has an opening dimension of about 50 nm or less.

23. The method as in claim 21, wherein the nozzle has an opening dimension of about 20 nm or less.

24. A method of sequencing a DNA strand comprising:

providing a nozzle array within a monolithic body, the nozzle array including at least four nozzles, each nozzle having an opening dimension of about 100 nm or less, associated nozzle well and an associated electrode;

providing adenine, cytosine, guanine, and thymine molecules within each of the four nozzle wells;

providing an electrode associated with the DNA strand;

passing a DNA strand under the nozzles; and

detecting across the electrodes hybridization events characterized by a relatively lower energy state when complementary structures of adenine and thymine, and of guanine and cytosine are in molecular interaction range.

25. The method as in claim 24, wherein the nozzle has an opening dimension of about 50 nm or less.

26. The method as in claim 24, wherein the nozzle has an opening dimension of about 20 nm or less.

27. A method of sequencing a DNA strand comprising:

providing a nozzle array within a monolithic body, the nozzle array including at least four nozzles, each nozzle having an opening dimension of about 100 nm or less, associated nozzle well and an associated electrode;

the nozzles filled with adenine, cytosine, guanine, and thymine molecules respectively;

providing an electrode associated with the DNA strand;

providing a reference position probe;

passing a DNA strand under the reference position probe and the nozzles; and

detecting across the electrodes hybridization events characterized by a relatively lower energy state when complementary structures of adenine and thymine, and of guanine and cytosine are in molecular interaction range.

28. The method as in claim 27, wherein the nozzle has an opening dimension of about 50 nm or less.

29. The method as in claim 27, wherein the nozzle has an opening dimension of about 20 nm or less.

30. A method of sequencing a DNA strand comprising:

providing a nozzle array within a monolithic body, the nozzle array including at least four nozzles, each nozzle having an opening dimension of about 100 nm or less,

associated nozzle well and an associated electrode;

the nozzles filled with adenine, cytosine, guanine, and thymine molecules respectively;

providing an electrode associated with the DNA strand;

providing a movable platform for holding the DNA strand;

moving the DNA strand under the nozzles by motion of the movable platform; and

detecting a hybridization event characterized by a relatively lower energy state when complementary structures of adenine and thymine, and of guanine and cytosine are in molecular interaction range.

31. The method as in claim 30, wherein the motion is stepped motion.

32. The method as in claim 31, wherein the stepped motion is in steps of about 0.5 to about 5 nanometer distances.

33. The method as in claim 30, wherein the nozzle has an opening dimension of about 50 nm or less.

34. The method as in claim 30, wherein the nozzle has an opening dimension of about 20 nm or less.

35. A method of nanolithography comprising:

providing a nozzle structure including a monolithic body having an array of nozzles, the nozzles having openings with sectional openings having heights of about 100 nm or less, the nozzles associated with a well structure;

providing lithographic material in the well structure; and

dispensing said lithographic material through said nozzle.